



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,045	10/15/2003	Seppo Nissila	187-72	5004
23869	7590	01/27/2006	EXAMINER	
HOFFMANN & BARON, LLP 6900 JERICHO TURNPIKE SYOSSET, NY 11791			ALTER, ALYSSA M	
			ART UNIT	PAPER NUMBER
			3762	
DATE MAILED: 01/27/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,045

Applicant(s)

NISSILA, SEPPÖ

Examiner

Alyssa M. Alter

Art Unit

3762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/19/04 & 8/13/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-9, 11 and 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Gorman (US 5,394,879). Gorman discloses a responsive exercise device for measuring a biomedical response, such as heartbeat.

As to claims 1 and 8, Gorman discloses in columns 16-17, lines 63-68 and 1-4, that the exercise is continuously adjusted based on the measurement of the body response, specifically heart rate.

For the exercise the “resistance is changed in accordance with the measured heart rate (for exp.) in a continuous manner to provide an exercise workout including warm-up, cool-down and sustained aerobic exercise” (col. 6, lines 62-65). Since heart rate is different in warm-up, cool-down and aerobic exercise, the heart rate limit will change at the end of the warm-up phase and the beginning of the cool-down phase.

As to claims 2 and 11, the predetermined change criterion is the users biological response, such as heart rate, which is continually monitored during exercise.

As to claims 3-4 and 13-14, Gorman discloses in col. 16, lines 11-14, “the heart rate is supposed to change during the phases of warm-up, aerobic workout, and cool-down, a more complex control mechanism is necessary than for a phase in which a

Art Unit: 3762

constant target heart rate is sought". Since "there is a significant delay between a change in the exercise intensity and a corresponding change of the body response, this must be anticipated by a more complex control algorithm; that is, the exercise equipment control should not be restricted to a feedback type regulation but should also incorporate a feed-forward control in which the equipment parameters are adjusted ahead of time in order to eliminate excess overshoots and undershoots of the measured body response" (col. 16, lines 26-34). This complex control mechanism is the predetermined change function. Likewise, the function has a linear relationship with heart rate.

As to claims 5-6 and 15-16, "the exercise equipment can be programmed to receive a continuous heart rate response of the target person and then adjust the intensity (such as resistance) of the exercise to maintain the person's heart rate within a preselected range"(col. 15, lines 6-10). The preselected range inherently has an upper and lower rate limit.

As to claim 7, 9 and 17, Gorman discloses in column 18-19, lines 60-68 and 1-16, "in operation, the user first identifies himself at the console of the exercise equipment prior to the exercise, e.g., by entering a password or by using the magnetic strip reader 76. If there already exists an exercise history file for this user, the user is asked to enter some information about the exercise which he/she plans to do. This information is entered using the console input unit 80 and may include the planned exercise time and the type of exercise, such as interval training or cardiovascular workout. The user can also override the automatic profile generation stored in internal

Art Unit: 3762

memory 78 by entering his/her own intensity or heart rate profile. This can be done, for example, by inserting the user's disk in the external memory reader 84. If there is no exercise history file for the user in internal memory 78 and no stored data is entered using unit 84, the user is asked to enter various personal data such as age, weight, height, gender etc. These data will then be stored in the exercise history file of the user in internal memory 78, and will be used for his/her future exercises. The user then receives various default profiles from which to choose. These profiles will include a warm-up time, a cool-down period and a period of time in which an aerobic heart rate will be maintained."

The profiles, which are initially inputted before the individual begins the exercise regiment, contain information regarding the duration of the warm-up, cool-down and aerobic exercise time periods in which the heart rate will be within a predetermined limit. Specifically in the cool-down period, a lower rate limit exists and therefore a lower heart rate limit is entered for the cool-down period.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.


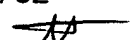
1. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorman (US 5,394,879) in view of Bimbaum (US Patent Publication US 20030028116 A1). Gorman discloses the claimed invention except for estimating the user's stress level or energy consumption. It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the physical parameter as taught by Gorman with the physical parameter of heart rate, time in exercise zone and total calories burned, as taught by Bimbaum since it was known in the art that to utilize several different parameters to control or modify exercise.

Art Unit: 3762

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alyssa M. Alter whose telephone number is (571) 272-4939. The examiner can normally be reached on M-F 9am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Alyssa M Alter
Examiner
Art Unit 3762



JEFFREY R. JASTRZAB
PRIMARY EXAMINER

1/23/04